

Project Title	Funding	Strategic Plan Objective	Institution
Identification of candidate genes at the synapse in autism spectrum disorders	\$167,751	Q2.Other	Yale University
Morphogenesis and function of the cerebral cortex	\$409,165	Q2.Other	Yale University
Role of GluK6 in cerebella circuitry development	\$52,106	Q2.Other	Yale University
Allelic choice in Rett syndrome	\$394,425	Q2.S.D	Winifred Masterson Burke Medical Research Institute
Developing novel automated apparatus for studying battery of social behaviors in mutant mouse models for autism	\$217,948	Q2.Other	Weizmann Institute of Science
Role of neuronal migration genes in synaptogenesis and plasticity	\$47,606	Q2.Other	Weill Cornell Medical College
The role of intracellular metabotropic glutamate receptor 5 at the synapse	\$25,890	Q2.S.D	Washington University in St. Louis
Role of intracellular mGluR5 in fragile X syndrome and autism	\$75,000	Q2.S.D	Washington University in St. Louis
Molecular mechanisms regulating synaptic strength	\$296,257	Q2.Other	Washington University
Establishing zebrafish as a model for RAI1 gene dosage	\$74,750	Q2.S.D	Virginia Commonwealth University
Genetic and developmental analyses of fragile X syndrome	\$544,592	Q2.S.D	Vanderbilt University
Ube3a requirements for structural plasticity of synapses	\$40,000	Q2.Other	Univ of North Carolina
Steroid receptors and brain sex differences	\$301,240	Q2.S.B	University of Wisconsin - Madison
The mechanism and significance of Evf ncRNA regulation of the DLX genes	\$2,425	Q2.S.D	University of Washington
Developmental versus acute mechanisms mediating altered excitatory synaptic function in the fragile X syndrome mouse model	\$127,500	Q2.S.D	University of Texas Southwestern Medical Center
Cortical circuit changes and mechanisms in a mouse model of fragile X syndrome	\$290,266	Q2.S.D	University of Texas Southwestern Medical Center
Regulation of synapse elimination by FMRP	\$52,154	Q2.S.D	University of Texas Southwestern Medical Center
Study of fragile X mental retardation protein in synaptic function and plasticity	\$392,087	Q2.S.D	University of Texas Southwestern Medical Center
Coordinated control of synapse development by autism-linked genes	\$150,000	Q2.S.D	University of Texas Southwestern Medical Center
Mouse models of human autism spectrum disorders: Gene targeting in specific brain regions	\$400,000	Q2.S.D	University of Texas Southwestern Medical Center
Proteomics in drosophila to identify autism candidate substrates of UBE3A	\$316,355	Q2.S.D	University of Tennessee Health Science Center
Function and structure adaptations in forebrain development	\$580,377	Q2.Other	University of Southern California
Met signaling in neural development and circuitry formation	\$81,998	Q2.Other	University of Southern California
Engrailed and the control of synaptic circuitry in drosophila	\$112,500	Q2.Other	University of Puerto Rico Medical Sciences Campus

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Functional circuit disorders of sensory cortex in ASD and RTT	\$261,599	Q2.S.D	University of Pennsylvania
Regulation of 22q11 genes in embryonic and adult forebrain	\$9,806	Q2.S.D	University of North Carolina at Chapel Hill
GABAergic dysfunction in autism	\$290,090	Q2.Other	University of Minnesota
Homeostatic regulation of presynaptic function by dendritic mTORC1	\$31,705	Q2.Other	University of Michigan
The microRNA pathway in translational regulation of neuronal development	\$376,031	Q2.S.D	University of Massachusetts Medical School
Synaptic phenotype, development, and plasticity in the fragile X mouse	\$421,590	Q2.S.D	University of Illinois at Urbana Champaign
Serotonin signal transduction in two groups of autistic patients	\$157,000	Q2.Other	University of Illinois at Chicago
ACE Center: Cognitive affective and neurochemical processes underlying is in autism	\$382,540	Q2.Other	University of Illinois at Chicago
Self-injurious behavior: An animal model of an autism endophenotype	\$0	Q2.Other	University of Florida
Molecular basis of autism associated with human adenylosuccinate lyase gene defects	\$0	Q2.S.D	University of Delaware
Role of micro-RNAs in ASD affected circuit formation and function	\$127,085	Q2.Other	University of California, San Francisco
Roles of Wnt signaling/scaffolding molecules in autism	\$28,000	Q2.Other	University of California, San Francisco
Analysis of Fgf17 roles and regulation in mammalian forebrain development	\$52,154	Q2.Other	University of California, San Francisco
Autism-specific mutation in DACT1: Impact on brain development in a mouse model	\$231,750	Q2.Other	University of California, San Francisco
A sex-specific dissection of autism genetics	\$270,375	Q2.S.B	University of California, San Francisco
A sex-specific dissection of autism genetics	\$150,000	Q2.S.B	University of California, San Francisco
Neuroligins and neuroligins as autism candidate genes: Study of their association in synaptic connectivity	\$60,000	Q2.Other	University of California, San Diego
A systems biology approach to unravel the underlying functional modules of ASD	\$655,975	Q2.Other	University of California, San Diego
Cellular characterization of Caspr2	\$23,907	Q2.Other	University of California, San Diego
Kinetics of drug macromolecule complex formation	\$729,415	Q2.Other	University of California, San Diego
The role of the autism-associated gene tuberous sclerosis complex 2 (TSC2) in presynaptic development	\$56,000	Q2.S.D	University of California, San Diego
Role of autism-susceptibility gene, CNTNAP2, in neural circuitry for vocal communication	\$0	Q2.Other	University of California, Los Angeles
Imaging PTEN-induced changes in adult cortical structure and function in vivo	\$278,686	Q2.Other	University of California, Los Angeles

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The role of FOX-1 in neurodevelopment and autistic spectrum disorder	\$142,677	Q2.Other	University of California, Los Angeles
Functional analysis of neurexin IV in Drosophila	\$148,746	Q2.Other	University of California, Los Angeles
Investigation of sex differences associated with autism candidate gene, CYFIP1	\$31,561	Q2.S.B	University of California, Los Angeles
TrkB agonist(s), a potential therapy for autism spectrum disorders	\$269,500	Q2.S.D	University of California, Los Angeles
BDNF and the restoration of spine plasticity with autism spectrum disorders	\$564,519	Q2.S.D	University of California, Irvine
The role of MeCP2 in Rett syndrome	\$337,753	Q2.S.D	University of California, Davis
Angelman syndrome (AS)	\$208,335	Q2.S.D	University of Alabama at Birmingham
MeCP2 modulation of BDNF signaling: Shared mechanisms of Rett and autism	\$320,469	Q2.S.D	University of Alabama at Birmingham
Genetic studies of autism-related Drosophila neurexin and neuroligin	\$137,500	Q2.Other	The University of North Carolina at Chapel Hill
Cell adhesion molecules in CNS development	\$541,105	Q2.Other	The Scripps Research Institute
Glial control of neuronal receptive ending morphology	\$422,500	Q2.Other	The Rockefeller University
Defining cells and circuits affected in autism spectrum disorders	\$820,059	Q2.Other	The Rockefeller University
Regulation of 22q11 genes in embryonic and adult forebrain	\$313,000	Q2.S.D	The George Washington University
Function of neuorexins	\$464,471	Q2.Other	Stanford University
A systematic test of the relation of ASD heterogeneity to synaptic function	\$875,864	Q2.Other	Stanford University
Synaptic analysis of neuroligin1 function	\$52,154	Q2.Other	Stanford University
Regulation of activity-dependent ProSAP2 synaptic dynamics	\$41,380	Q2.Other	Stanford University
Function and dysfunction of neuroligins in synaptic circuits	\$150,000	Q2.Other	Stanford University
Modulation of fxr1 splicing as a treatment strategy for autism in fragile X syndrome	\$158,649	Q2.S.D	Stanford University
Augmentation of the cholinergic system in fragile X syndrome: A double-blind placebo study	\$240,000	Q2.S.D	Stanford University
L-type calcium channel regulation of neuronal differentiation	\$41,380	Q2.S.D	Stanford University
Probing a monogenic form of autism from molecules to behavior	\$312,500	Q2.S.D	Stanford University
Role of neuroligin in synapse stability	\$127,500	Q2.Other	Oklahoma Medical Research Foundation
Excessive cap-dependent translation as a molecular mechanism underlying ASD	\$549,386	Q2.Other	New York University

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Translation regulation in hippocampal LTP and LTD	\$372,141	Q2.S.D	New York University
Studies on protein synthesis and long-term adaptive responses in the CNS	\$1,992,862	Q2.Other	National Institutes of Health
Gene silencing in fragile X syndrome	\$323,483	Q2.S.D	National Institutes of Health
Engrailed genes and cerebellum morphology, spatial gene expression and circuitry	\$474,750	Q2.Other	Memorial Sloan-Kettering Cancer Center
Brain lipid rafts in cholesterol biosynthesis disorders	\$63,000	Q2.Other	Medical College of Wisconsin
Imaging synaptic neurexin-neuroligin complexes by proximity biotinylation: Applications to the molecular pathogenesis of autism	\$0	Q2.Other	Massachusetts Institute of Technology
Regulation of synaptogenesis by cyclin-dependent kinase 5	\$342,454	Q2.Other	Massachusetts Institute of Technology
Investigation of postnatal drug intervention's potential in rescuing the symptoms of fragile X syndrome in adult mice	\$0	Q2.S.D	Massachusetts Institute of Technology
Role of Pam in synaptic morphology and function	\$127,497	Q2.Other	Massachusetts General Hospital
Retrograde synaptic signaling by Neurexin and Neuroligin in C. elegans	\$125,000	Q2.Other	Massachusetts General Hospital
MicroRNAs in synaptic plasticity and behaviors relevant to autism	\$131,220	Q2.S.D	Massachusetts General Hospital
Development of novel diagnostics for fragile X syndrome	\$532,677	Q2.S.D	JS Genetics, Inc.
The role of CNTNAP2 in embryonic neural stem cell regulation	\$150,000	Q2.Other	Johns Hopkins University School of Medicine
Olfactory abnormalities in the modeling of Rett syndrome	\$355,163	Q2.S.D	Johns Hopkins University
The microRNA pathway in translational regulation of neuronal development	\$37,604	Q2.S.D	J. David Gladstone Institutes
Perturbed activity-dependent plasticity mechanisms in autism	\$311,292	Q2.Other	Harvard Medical School
Activity-dependent phosphorylation of MeCP2	\$173,979	Q2.S.D	Harvard Medical School
Neuronal activity-dependent regulation of MeCP2	\$437,522	Q2.S.D	Harvard Medical School
Neuronal activity-dependent regulation of MeCP2 (supplement)	\$77,123	Q2.S.D	Harvard Medical School
Elucidation and rescue of amygdala abnormalities in the Fmr1 mutant mouse model of fragile X syndrome	\$150,000	Q2.S.D	George Washington University
GABA(A) receptor modulation via the beta subunit	\$226,499	Q2.Other	Emory University
Young development of a novel PET ligand for detecting oxytocin receptors in brain	\$264,000	Q2.Other	Emory University
Fundamental mechanisms of GPR56 activation and regulation	\$134,269	Q2.S.D	Emory University

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Quantitative proteomic approach towards understanding and treating autism	\$75,000	Q2.S.D	Emory University
Neurologin regulation of central GABAergic synapses	\$78,000	Q2.Other	Duke University
Imaging signal transduction in single dendritic spines	\$386,100	Q2.Other	Duke University
BDNF secretion and neural precursor migration	\$0	Q2.Other	Dana-Farber Cancer Institute
New approaches to local translation: SpaceSTAMP of proteins synthesized in axons	\$161,094	Q2.S.D	Dana-Farber Cancer Institute
Neurexin-neurologin trans-synaptic interaction in learning and memory	\$100,000	Q2.Other	Columbia University
Neurexin-neurologin trans-synaptic interaction in learning and memory	\$100,000	Q2.Other	Columbia University
Aberrant synaptic form and function due to TSC-mTOR-related mutation in autism spectrum disorders	\$150,000	Q2.S.D	Columbia University
Aberrant synaptic function caused by TSC mutation in autism	\$75,000	Q2.S.D	Columbia University
Glutamate receptor desensitization and its modulation	\$328,338	Q2.Other	Colorado State University
Cell type-based genomics of developmental plasticity in cortical GABA interneurons	\$210,000	Q2.Other	Cold Spring Harbor Laboratory
High-throughput DNA sequencing method for probing the connectivity of neural circuits at single-neuron resolution	\$435,000	Q2.Other	Cold Spring Harbor Laboratory
Neural circuit deficits in animal models of Rett syndrome	\$44,000	Q2.S.D	Cold Spring Harbor Laboratory
Cell-based genomic analysis in mouse models of Rett syndrome	\$513,667	Q2.S.D	Cold Spring Harbor Laboratory
Cellular and molecular alterations in GABAergic inhibitor circuits by mutations in MeCP2	\$330,774	Q2.S.D	Cold Spring Harbor Laboratory
The mechanism and significance of Evf ncRNA regulation of the DLX genes	\$438,060	Q2.Other	Children's Memorial Hospital, Chicago
The functional link between DISC1 and neuroligins: Two genetic factors in the etiology of autism	\$0	Q2.S.D	Children's Memorial Hospital, Chicago
The effects of Npas4 and Sema4D on inhibitory synapse formation	\$0	Q2.Other	Children's Hospital Boston
Visual system connectivity in a high-risk model of autism	\$0	Q2.S.D	Children's Hospital Boston
Autism and the insula: Genomic and neural circuits	\$620,305	Q2.Other	California Institute of Technology
Presynaptic fragile X proteins	\$90,000	Q2.S.D	Brown University
Elucidating the function of class 4 semaphorins in GABAergic synapse formation	\$320,250	Q2.Other	Brandeis University
In-vivo imaging of neuronal structure and function in a reversible mouse model for autism.	\$28,000	Q2.S.D	Baylor College of Medicine

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Elucidating the roles of SHANK3 and FXR in the autism interactome	\$396,509	Q2.S.D	Baylor College of Medicine
Role of neuroligins in long-term plasticity at excitatory and inhibitory synapses	\$59,918	Q2.Other	Albert Einstein College of Medicine of Yeshiva University

